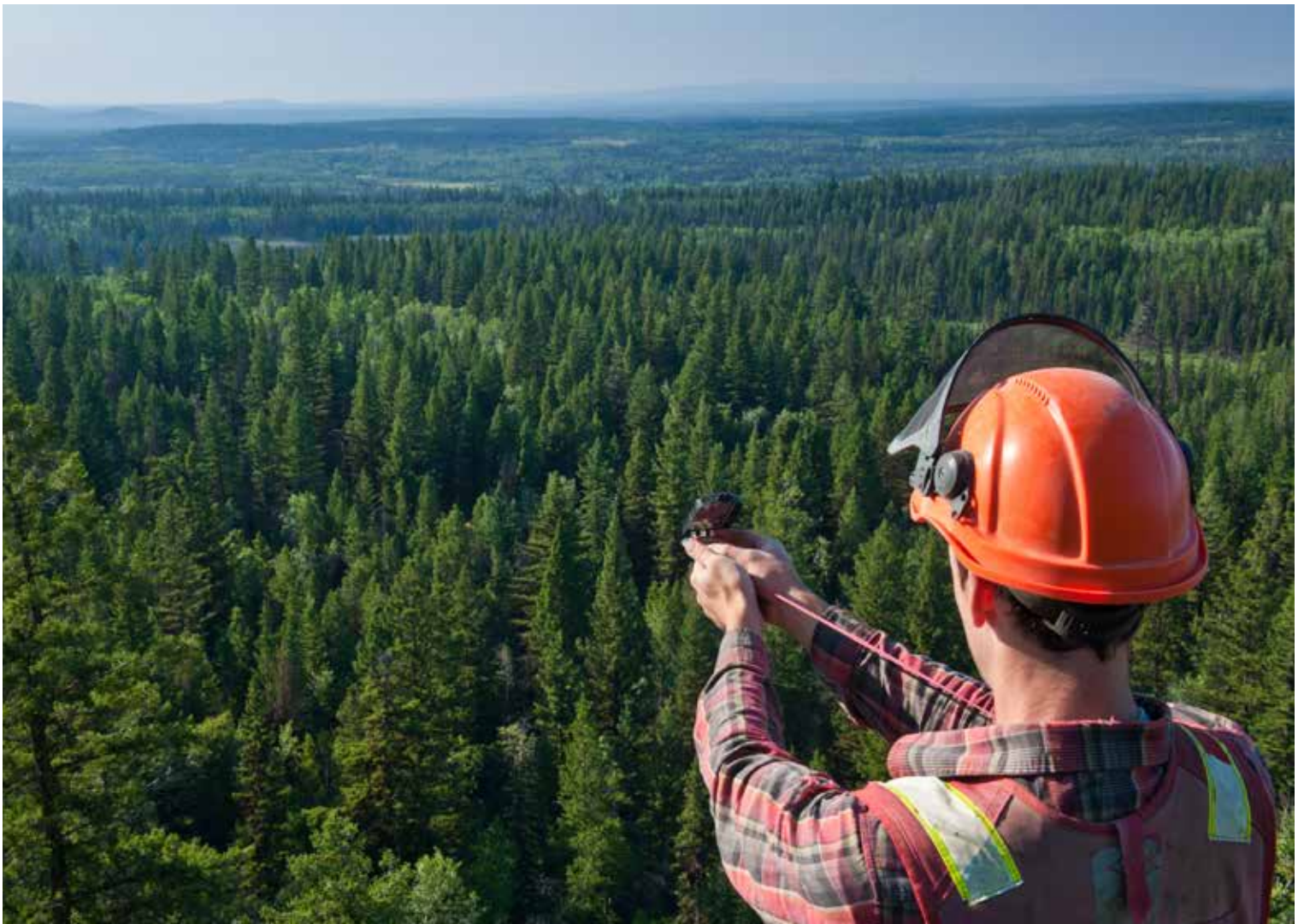


THE STATE OF BRITISH COLUMBIA'S FORESTS: A GLOBAL COMPARISON

“British Columbia has one of the world’s most comprehensive forestry regimes with the Forest and Range Practices Act being the primary tool for regulating the forest sector.”

The State of British Columbia’s Forests: A Global Comparison, a research study conducted by the University of British Columbia’s (UBC) Faculty of Forestry, used key measures to determine how forest practices in British Columbia (B.C.) compare with seven countries participating in the Montréal Process Criteria and Indicators.

The study found that sustainable forest management is a clear priority in B.C. and a central policy focus for the provincial government. B.C. has one of the world’s most comprehensive legal frameworks and is a leader in third-party forest certification. A second study used identical methodology to compare Canada with the same seven jurisdictions and found Canada’s forest management and conservation regime is one of the most advanced in the world.



How the studies were conducted

Commissioned by B.C.'s Forestry Innovation Investment and the Canadian Council of Forest Ministers, Dr. Haris Gilani and Dr. John Innes of UBC's Faculty of Forestry performed a comparative analysis on four key areas related to long-term sustainable forest management: legal framework, management plans, stakeholder involvement, and data collection and management. Country specific data came from the UN Food and Agriculture Organization's *Global Forest Resources Assessment 2015*.¹

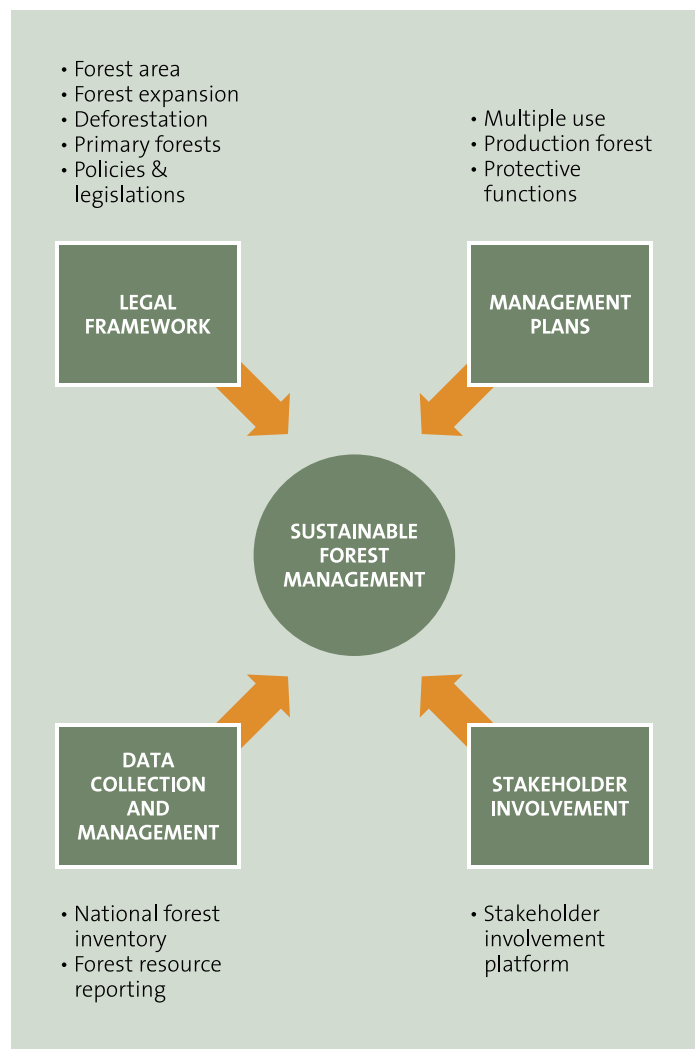
The Montréal Process's Criteria and Indicators² were used as a framework because of its broad geographic coverage. The two studies show how sustainable forest management practices in B.C. and Canada compare with those of the European Union and six of 12 countries in the Montréal Process working group—Australia, China, Japan, New Zealand, Russia and the United States.

The Montréal Process working group was launched in 1994 and has developed criteria and indicators to cover temperate and boreal forests. The 12 current member countries, which includes Canada, report on 90 percent of the world's temperate and boreal forests, close to half of all the world's forests and wood production.

Its seven criteria and 54 associated indicators provide a common framework for member countries to describe, monitor, assess and report on national forest trends and progress toward sustainable forest management. Canada has developed a set of national criteria and indicators based on the Montréal Process.

The State of British Columbia's Forests: A Global Comparison was published in the open access journal *Forests* in March 2020 after a double-blind peer review.³ The journal assigned the reviewers, and the identities of both the authors and reviewers were concealed throughout the review process.

The State of Canada's Forests: A Global Comparison has been published in the international journal *Forest Policy and Economics*.⁴



OVERVIEW OF FINDINGS

The State of British Columbia's Forests: A Global Comparison found that B.C. is a global leader in sustainable forest management.

- One of the world's most comprehensive forest regulation regimes
- Second-highest proportion of land covered with forest (57 percent); deforestation rate among the lowest in the world
- Fourteen percent of forests protected; amount of recognized protected land in B.C. has more than doubled since the early 1990s

The B.C. report states that the province's efforts to achieve sustainable forest management have been largely successful, and its prospects for forest sustainability remain positive.

¹ Food and Agriculture Organization of the United Nations Global Forest Resources Assessment 2015 www.fao.org/forest-resources-assessment/past-assessments/fra-2015/en/

² The Montréal Process www.montrealprocess.org/

³ *Forests*, Volume 11, Issue 3, March 2020. <https://www.mdpi.com/1999-4907/11/3/316>

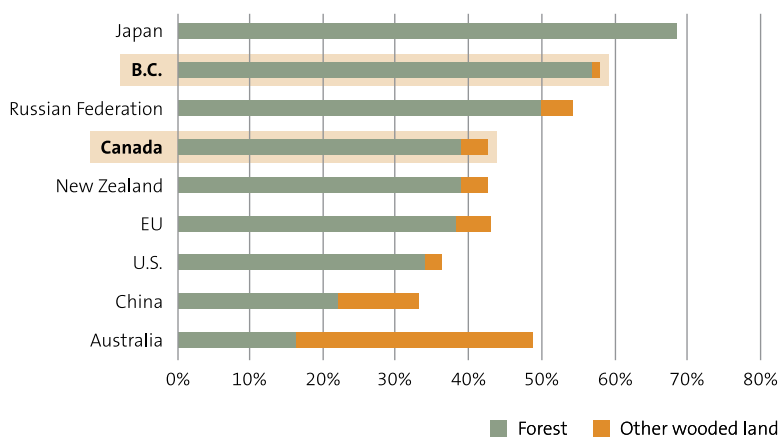
⁴ *Forest Policy and Economics* <https://www.sciencedirect.com/science/article/abs/pii/S1389934119304964>

Legal framework

Legal framework examines the total forest area in each jurisdiction, its percentage of the total land area, how it has changed over time, how much is primary forest, how much has been converted to other uses (deforestation), and the policies and legislation governing forest management.

Of the jurisdictions studied, Russia dominates in terms of **total forest area** (815 million hectares), followed by Canada (347 million hectares), the United States (310 million hectares) and China (208 million hectares). B.C. was sixth.

While **trends in forest area over time** is a basic measure of forest health, there is little reliable information available globally. Forest loss occurs almost exclusively in the tropics or in poorer countries, with stable or expanding forest cover in other regions, including Canada where there was almost zero annual change. Japan, New Zealand and Russia also reported no change in their forests from 1990 to 2015, and the United States and European Union reported a slight increase.



B.C. ranks second in terms of forest as a percentage of land area with 57 percent of the land covered with forests and other wooded land. Forests cover 42 percent of Canada's land base.

Deforestation refers to the permanent loss of forest cover due to a change in land use such as urban expansion and settlement, agriculture, oil and gas and transportation. Forest loss in countries like the United States occurred shortly after European immigration, has remained stable since the start of the last century, and the forest area is now expanding. In Canada, recent forest loss has been insignificant given the total forest area.

Primary forests are naturally regenerated forests of native species where there are no clearly visible indications of human activities, and ecological processes are not significantly disturbed.⁵ They support a wide range of biodiversity and ecological services not available in younger forests. Russia has the most primary forest followed by Canada and the United States.

Most of the jurisdictions studied, including Canada, have **policies and legislation** at the national, regional, provincial/state and local levels to support sustainable forest management on private and public forests but there is a great deal of variability.

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The forest area in B.C. is stable with 54.4 million hectares, almost zero annual change and a deforestation rate of 0.01 percent. More than 40 percent of B.C.'s forests are more than 140 years old, and a third of these are more than 250 years old. In Canada, forest management is a provincial responsibility, and B.C. has a comprehensive framework of forest laws at provincial and regional levels.

⁵ FAO Forest Resources Assessment 015 Terms and Definitions <http://www.fao.org/3/ap862e/ap862e00.pdf>

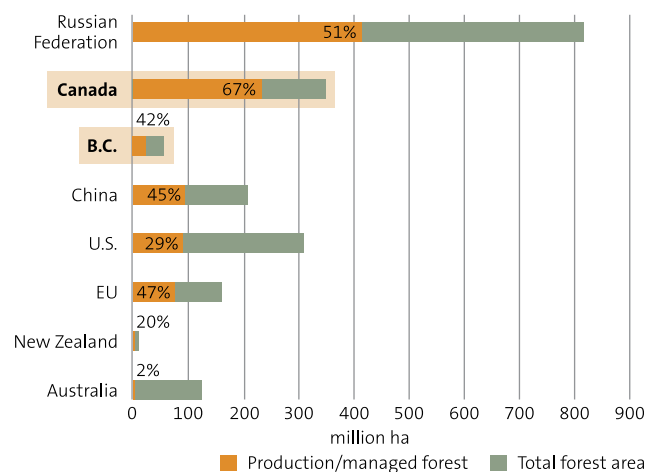
Management plans

The management plans section includes multiple use, production forest and protective functions such as biodiversity conservation.

In 2015, 25 percent of total forest area worldwide was broadly designated as **multiple use**, which means it has more than one use (e.g. production, conservation, recreation) without a predominant designation. Almost a third is designated for the production of wood and non-timber forest products.

There are significant regional differences in the area of multiple-use forests. North America and Europe have more nature-oriented production, with multiple-use forests making up 58 percent and 24 percent of the total, respectively, while China has 19 percent and New Zealand has designated just a fraction of its total forest for multiple use. This compares with Canada where 85 percent of the forest is designated for multiple use.

In Australia, **production/managed forests** have increased, largely through plantations, while in China they have been reduced as part of a policy to take natural forests out of production. The area designated for production has increased in the United States and decreased in Russia and the European Union.



B.C. is third after the Russian Federation and Canada as a whole in terms of percentage of forest area available for harvest.

There has been a substantial increase in **areas designated for biodiversity conservation** in China, the European Union and the United States. New Zealand has the largest proportion with two-thirds of forest designated for biodiversity conservation, Australia and the United States are at 20 percent and although Russia has the largest forest area only three percent is designated.

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B.C. has designated about 85 percent of its forests for multiple use, and about 42 percent are available for harvesting. Forests are home to many significant natural and cultural values in the province. As part of its strategy to conserve biodiversity, B.C. has protected 14 percent of its forests in parks and other protected areas, as well as designated old growth management areas, riparian reserves and wildlife management areas.

Data collection and management

Forest resources management relies on measurements of key attributes such as species composition and volume per hectare growth rates. In 2010, fewer than 50 countries had a **national forest inventory**; by 2014 this had increased to 112 countries covering 81 percent of the global forest area. The value of this information relies on reporting mechanisms such as criteria and indicators and state of the forest reports.

The eight jurisdictions studied have all of their forests covered by national forest inventories although there is some variability. The National Forest Inventory—British Columbia Program involves permanent ground plots to measure forest attributes at defined locations and photo-based plots to track tree growth.

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B.C.'s inventory program tracks and monitors the current status of its forests. B.C. has moved to an iterative approach to reporting on the State of the Forests, with regular information updates posted online.

Stakeholder involvement

The Montréal Process requires stakeholder inputs into operational decisions for public forests. All of the jurisdictions studied, except for New Zealand, have national platforms for stakeholder involvement in forestry.

All of the jurisdictions studied invite **stakeholder involvement** and produce state of the forest reports except for New Zealand and some European Union countries. All perform criteria and indicator reporting except for four EU countries (Ireland, Italy, Malta and the Netherlands).

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Stakeholder involvement is an essential component of B.C.'s management of public forest lands—through government's strategic land use planning, forest companies' operational planning, and involvement in third-party forest certification. Under the *Forest and Range Practices Act*, license holders must make their operational forest stewardship plans available to local stakeholders, communities and First Nations for review and comments before government approves them.



The research concluded that “... British Columbia ranks high (among the jurisdictions studied) on several key sustainable forest management parameters with legislation and forest management regimes aimed to meet the environmental, social and economic needs of current and future generations.”



OTHER REPORTS

Indufor 2016 *International Comparison of Forest Management Legal Frameworks and Certification Standards* naturallywood.com/resources/comparing-bc-world-forest-regulation-and-certification

Indufor Oy 2009 *Comparison of Selected Forest Certification Standards* naturallywood.com/resources/comparison-selected-forest-certification-standards-2009

State of British Columbia's Forests Reports gov.bc.ca/gov/content/environment/research-monitoring-reporting/reporting/environmental-reporting-bc/previous-reports-indicators

Food and Agriculture Organization of the United Nations *Global Forest Resources Assessment 2015* fao.org/forest-resources-assessment/past-assessments/fra-2015/en/

The Montréal Process montrealprocess.org/

About 50% of wood products exported from Canada come from British Columbia's sustainably managed forests. This publication is part of the 'Forest Facts' series, published by Forestry Innovation Investment, the Government of British Columbia's market development agency for forest products.

To learn more about other B.C. forest facts, visit:

naturallywood.com